

# EUROPEAN PATENT OFFICE

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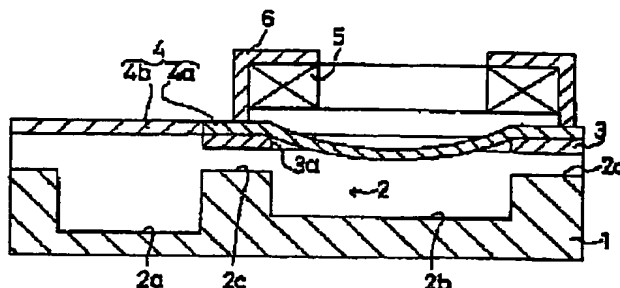
APPLICATION DATE : 19-05-92  
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INVENTOR : SHIMIZU YUKIHARU;

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TITLE : INK JET RECORDER



**ABSTRACT :** PURPOSE: To enable a high speed printing by using electromagnetic force to be performed in a low power consumption.

**CONSTITUTION:** A passage substrate 1 and a cover plate 4 are formed by a plastic magnet material consisting of magnetic powder and thermoplastic resin. Then, they are arranged so that their opposed surfaces attract magnetically each other. A reinforcing board 3 having a hole part 3a corresponding to a pressure generating chamber 2b is laid between both plates 1, 4. Further, a coil 5 (an electromagnetic force generator) is attached onto the cover plate 4. In non-printing voltage is not impressed to the coil 5. The cover plate 4 and the passage substrate 1 which are preliminarily magnetized are attracted to each other by their polarities, and a volume of the pressure generating chamber 2b corresponding to the hole part 3a becomes extremely small. In printing voltage is once impressed to the coil 5 to be acted as an electromagnet. After alienating the cover plate 4 from the passage substrate 1, impression of voltage is stopped immediately, and the cover plate 4 is made to approach the passage substrate 1. The volume of the pressure generating chamber 2b is decreased, and ink is injected.

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